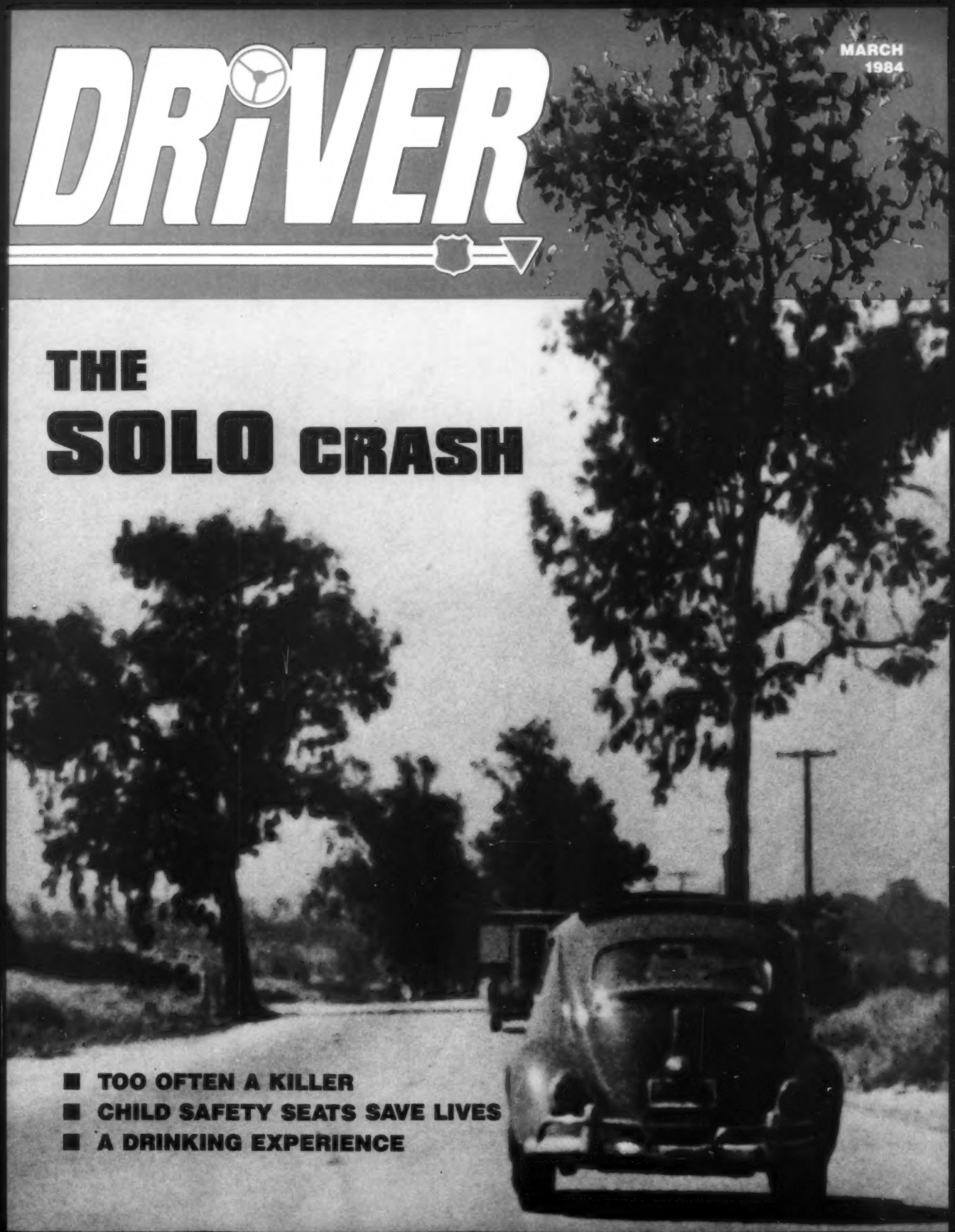
DRIVER

MARCH
1984

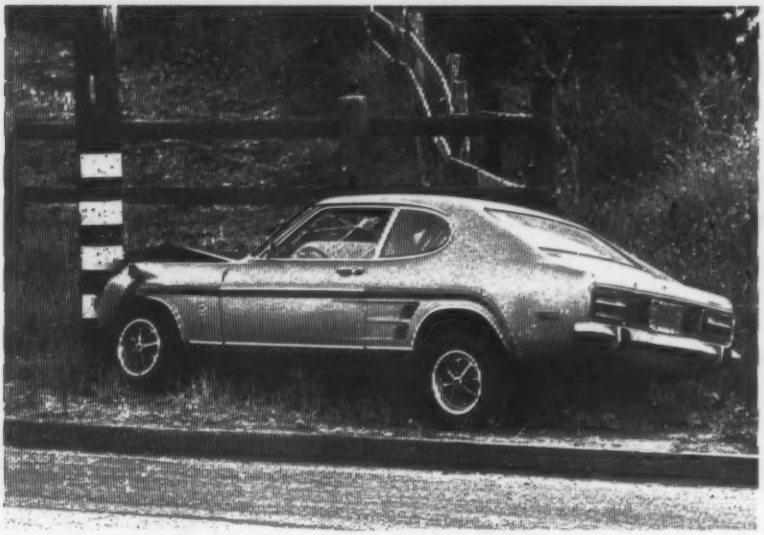


THE SOLO CRASH

- TOO OFTEN A KILLER
- CHILD SAFETY SEATS SAVE LIVES
- A DRINKING EXPERIENCE

DRiVER

The single vehicle accident is largely the fault of you, the driver. So the solution is also within your control.



THE SOLO CRASH

A sergeant was finishing up a three-day weekend at home with his parents. Late in the evening, with no sleep, he left to visit some friends in town. While there, he fell asleep. A friend suggested he sleep before driving the 375 miles back to his base, but he left anyway because he had to be on duty at 0700 the next morning.

About 35 miles from his goal, he fell asleep at the wheel of his car. A witness saw him slumped in the car as he drifted from the right side of the highway to the left and off onto the center median. He apparently awakened and tried to get back on the highway. But he overcorrected and went clear across the highway, leaving the pavement on the right side.

The car overturned and rolled two and a half times. The sergeant, not wearing his seatbelt, was thrown out the open driver's window and pinned underneath the car. He died of a broken neck.

This is just one example of a type of accident that occurs thousands of times each year, but which receives less attention than the more spectacular mishaps. It is the single vehicle accident.

We are all aware of accidents involving other vehicles. (At least we should be. "Looking out for the other guy" could be a life-saving national pastime.) But the single vehicle accidents can occur without the interference of other vehicles, sometimes when there are no other vehicles in sight.

Single vehicle accidents are really needless. Streets and highways are designed and constructed so that a prudent, safe driver shouldn't have any difficulty. However, many drivers are not prudent and safe.

In the true story that started this article, the driver made a mistake — he overextended himself. He drove a long distance without proper rest and he died in an automobile crash. The main cause was falling asleep at the wheel, but even though he fell asleep he might not have had the accident if he hadn't overcorrected. Further, even though he had the accident he might not have died if he'd worn his belt.

In single vehicle accidents, far more often than not, the primary cause is some mistake of the driver — driving too fast on a curve, driving under the influence of alcohol, and the like. Other factors often contribute, but the driver's mistake is foremost. And since the driver is at fault, these accidents should be all the more preventable.

We intend to deal with a few of the reasons for solo accidents, some of the factors and circumstances surrounding them, and what can be done by individual drivers to keep their cars on the road instead of against a tree.

HOW BAD A PROBLEM?

The National Safety Council breaks the single vehicle accident category into two groups, the non-collision accident (including rollovers and running off the road) and the fixed object accident. Together, these make up 36 to 37 percent of the motor vehicle fatalities each year in the U.S., only slightly less than the multi-vehicle accidents. Some sources report the percentage of single vehicle accidents much higher, and increasing each year.

Let's take a look at the Air Force ex-

continued

THE TRAFFIC SAFETY MAGAZINE FOR THE MILITARY DRIVER

DRIVER

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HQ AIR FORCE INSPECTION
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continued

perience. In 1982 there were 162 fatal accidents in private motor vehicles (PMVs). Seventy-two of these were single vehicle accidents. That's over 44 percent. In 1983, out of 170 fatal PMV accidents, 82 were single vehicle accidents. That's 48 percent. Nearly half.

TIME AND ALCOHOL

It is interesting to note when these accidents happen. Accident studies have shown that single vehicle accidents tend to happen on weekends, as opposed to multi-vehicle mishaps, which are more evenly distributed throughout the week. The one vehicle accidents happen more often in the late night hours, whereas multi-vehicle accidents occur more frequently during the evening drive home from work.

It doesn't take much imagination to make a connection between time and a degree of impairment. The example at the beginning of this article involving fatigue and those that follow involving alcohol show what we mean.

Alcohol is commonly involved in well over half the single vehicle accidents according to some studies. An item from the Mothers Against Drunk Drivers states, "Of those who die in single-car wrecks, 65 percent are drunk." The Air Force statistics for the past couple of years: 36 percent of the single vehicle accidents in 1982 involved alcohol; 54 percent of 1983.

Sometimes the circumstances can be bizarre and frightening.

A sergeant was released from duty for a night shift and went to a bar and then to an off-base party. At both places he drank beer. After several hours he decided to go home. His friends were concerned and asked if he was sober enough to drive. He insisted he was okay and left.

The guard at the gate smelled alcohol, but let him go. He went through the base and continued on a highway at a high rate of speed, perhaps 55 or 65 mph. On a slight right curve, he came upon a

continued

stopped vehicle. He braked and veered to miss the other car. His vehicle skidded 122 feet before striking the center median and becoming airborne. It crashed into a tree in the median.

The sergeant suffered a severe head injury and died the next day.

Another example:

After working most of a duty day, an airman met some friends at a bar for a few beers. He drank for about four hours and then left with a friend to go to another bar. Witnesses at the second bar said they looked very intoxicated. They drank for about two and a half hours. During this time, they both got into arguments with others in the bar, and the driver was knocked down once.

After this, they went to a third bar where a friend noticed their staggering and slurred speech. They each had at least one more beer. The friend insisted he should drive them home, but they left before he could make arrangements.

They were driving along a highway at a high rate of speed when they ran off the right side of the road, taking out a roadside marker post. They were traveling so fast that as they continued on they knocked over three trees, each four to eight inches in diameter.

The car finally came to rest lying on the passenger side with the roof against a tree. The passenger was dead at the scene, and the driver was seriously injured. The two had to be cut out of the vehicle.

Investigators found that the car had been in excellent condition. There were no skid marks to indicate any braking. The investigators concluded the driver must have lost consciousness before running off the road.

And one more:

Four airmen met together after they got off work after 11 p.m. They spent about three hours drinking beer and then left the base to go to a lake. The driver parked his car pointed directly at the lake.

All four men went to the lake, but the driver soon returned and got in his car and went to sleep. When the others came back later they awakened the driver. He started his car and, apparently disoriented, drove directly into the lake. The car completely submerged.

The three passengers got out of the car through the right passenger window and swam for the shore. One of them drowned before reaching the shore. The driver was later found dead in his car. His blood alcohol level was .15.

Impairment from alcohol leads to other difficulties and mistakes. In the first alcohol-related example, the driver was not only drunk, he was also speeding. Probably his reaction time was slowed, and the combination was too much.

In the second example, the drunkenness probably caused a loss of consciousness. Again, the driver was speeding.

In the third, the drunkenness caused the driver to make the mistake of driving into the lake, rather than away from it.

The solution: Don't drink and drive. It's that simple. You can't expect to drive safely under the influence of alcohol. Driving safely is usually a matter of skill, but after a few drinks it's a matter of luck. Your judgment is affected so you'll take more chances and go faster. Your reaction time is lengthened so you can't avoid hazards or react in time to emergency situations. Your perceptions are interfered with so all your senses are dulled.

Just don't do it.

SPEED

In the Air Force experience, as in the general population as well, speeding is often a factor in single vehicle accidents, but it is usually combined with alcohol. The examples that have already been cited will show this.

The solution: Don't speed. The speed limits posted on all roads are there for good reasons. Those on city streets will allow you time and space to stop safely at the next intersection and will allow you reaction time in case of the sudden appearance of other cars or pedestrians. The speed limits on winding roads will

allow you to navigate without leaving your own lane of travel. And so on.

Of course, you will notice, this says nothing about the problem of speeding mixed with alcohol. We have to go back to the previous solution: Don't drink and drive. When you've been drinking, your judgment is badly affected. You won't drive so slowly or so safely as you will when you're sober.

FATIQUE

Fatigue (even without the additional factor of alcohol) is often a problem in single vehicle accidents. The example that started this article points this out. But sometimes the driver can suffer fatigue even when he starts out rested.

A sergeant left base on terminal leave in conjunction with an honorable discharge. He was on his way to another Air Force base to visit a friend. He had had a full night's sleep and hadn't drunk any alcohol.

About eight and a half hours and 350 miles from his starting point, his car went off the left side of the highway and entered the median, which was flat and level. His car traveled almost parallel to the highway on the median for about 275 feet. When the driver tried to get the car back onto the roadway, it rolled over and did seven complete rolls. The driver was thrown out of the car and crushed when it rolled over him. He died in the hospital about two hours after the accident.

The investigating officer concluded the sergeant had fallen asleep at the wheel.

The solution: Don't drive when you're tired, especially for long distances. If you start out a long journey without proper rest, you can almost be assured of a loss of efficiency, followed by a loss of consciousness (and perhaps a loss of life). Driving long distances is boring at best, and the monotony of the drive can lull you to sleep easier than just about anything else.

But even when you start out rested, as in the previous example, there is a limit to the distance you can safely go. You must stop to rest regularly during the day, and you must stop early enough in the evening to allow some relaxation time *and* sleep time. (That means: Don't drive until you have to sleep and then sleep and go again. Even though you're only sitting, driving is a strenuous activity. Give yourself a break. Several breaks, in fact.)

Eight hours on the road, including all stops for food, gas, and even just stretching, is enough for one day. Think of it like you think of your job. After eight hours, you're ready to get out of there. Likewise, after eight hoiurs on the road, look for a place to stop.

continued

INATTENTION

Carelessness and inattention to driving can also cause accidents. It takes a lot of attention to successfully pilot a motor vehicle, and just a slight lapse can lead to a crash.

A sergeant on a motorcycle was driving south on a road. He looked at something to his left and the momentary distraction caused him to lose control of the motorcycle. He went off the road on the left shoulder and continued 140 feet before he crashed into a telephone pole. Although he was wearing a helmet, he suffered fatal head injuries.

In this example, something took the driver's attention away from his driving just long enough and he lost his life. That may seem like a very out-of-the-ordinary example, but many single vehicle accidents are caused by slight inattention. Somebody just happened to see this one.

Only a momentary loss of attentiveness could cause you to drive out of your lane or off the road. Slight misjudgment or miscalculation, by itself, might not lead to a life-threatening accident but, on the other hand, it might.

The solution: Don't allow your attention to wander when you're at the wheel (or handlebars). Give all your attention and senses to the task of driving. Don't be distracted by advertising signs, sights, people or anything else that is not directly connected to effective driving.

IN CONTROL

So far, our solutions on avoiding the single vehicle accident have told you what you *shouldn't* do: Don't speed, don't drive drunk, don't drive tired, etc. Let us put the advice a different way: Drive within the speed limit, so you can maintain control. Drive sober, so your reflexes and perception will be good. Drive rested, so you can arrive safely. Drive alert, so you can see dangers before they surprise you.

You can avoid single vehicle mishaps, because you are in control.

Destructible barrels, filled with varying amounts of sand can serve to slow a colliding vehicle to a survivable speed before it comes in contact with a concrete abutment.

These barrels have already absorbed some collision impact.

SIGNS, SIGNALS

As much as possible, roads are designed to be free from surprises for the driver. When surprises are possible, the highway builders have made provisions to enable drivers to navigate safely. These provisions are in the form of visual signs and markers and various kinds of barriers designed to alert the driver of the road ahead, or that the car is going out of its own space. In extreme cases, certain devices are there to keep it within that space.

Every sign on the road is designed to show where the driver needs to be. The signs showing the curves ahead, those showing the imminent narrowing of the road, and especially the reflector signs at the sides of the road, serve as guides for the driver.

The lines painted on the highways and streets also show where the automotive traffic should stay. The dotted lines between lanes and the solid lines between opposing traffic directions give the driver a guide to maneuver the car.

Beyond these, there are more involved methods of displaying the proper route of travel. In certain areas (California among them) raised markers are used along with the dotted lines between lanes. Some of these are beveled, with reflectors for nighttime driving. Other markers, in the form of rounded dots placed in a line, serve not only as a visual delineator of the lane but also as an audible signal — they cause the car tire to make a noise when it rolls over them.

These rounded dots are applied to the freeway to serve as a visual marker of the lane boundaries. If the car crosses them, they cause the tires to make noise and the driver also gets an audible message.

Some barriers are filled with water.

Reflective, beveled markers are one method used to mark the lanes.

AND BARRIERS

Another audible "signal" that is used in some places is called the rumble strip. This is a series of grooves cut into the pavement *across* the direction of traffic on the shoulder of a highway to tell the driver the car is off the traveled portion of the road. These strips are sometimes used to show the end of a highway.

The physical barriers that are used on streets and highways are placed there to guard the driver from leaving his or her own lane or from hitting something. Hitting the barriers, of course, will cause some damage to the vehicle, but not so much as, for instance, running off into a ravine or hitting opposing traffic.

The most common barrier is the guardrail. Guardrails keep the car on the road where the surounding area is lower than the road, such as in the mountains where they appear on the outside of curves, and on bridges where they are installed on both sides of the road.

Other common barriers are fences and bushes, placed to keep cars in place or slow them if they get out of the proper lane.

Cement barriers are often put between opposing lanes of traffic on freeways. These barriers will prevent the worst kind of two-vehicle accident, the head-on collision, if a car should go to the left. Since they are made of cement they can cause severe damage to the car, and they are therefore sloped to minimize the damage.

In some places, certain solid obstructions exist that present too great a danger to traffic. Bridge abutments, light poles and the like are examples of this. At such places, the highway department might install an impact attenuator. Impact attenuators are collapsible barriers that will slow and (hopefully) stop a vehicle before it hits the solid obstruction. There are different types of impact attenuators. Some will be containers filled with water, some with vermiculite, some with sand. Some will be surrounded by a guardrail. These barriers will, of course, damage the car, but again the damage will be far less than what would be caused by a single vehicle accident against what they stand in front of.

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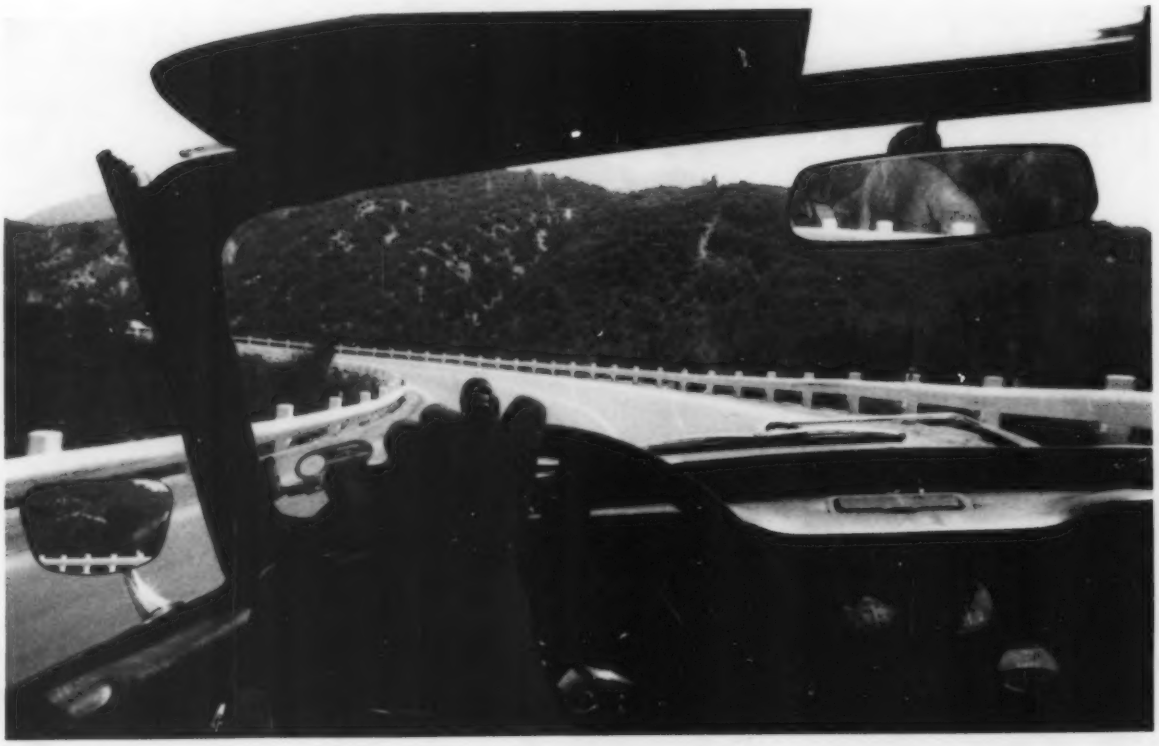
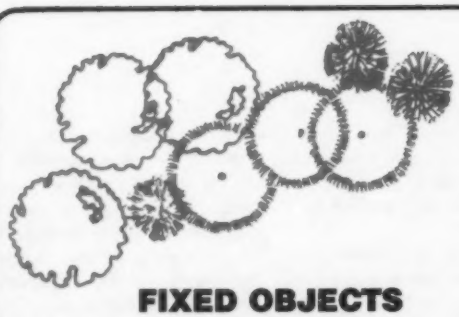




FIXED OBJECTS

In a single vehicle accident, after the vehicle leaves the intended traffic lane of the road, it often collides with a fixed object.

The National Highway Traffic Safety Administration's Fatal Accident Reporting System shows that in 1980, the most common objects hit in fatal accidents were trees and shrubs. These accounted for 22.7 percent of all fixed object fatal accidents (on all kinds of roads).

On interstate highways and other limited access roads, the most common object hit in fatal crashes was the guardrail. The percentages were 41.8 and 29.4, respectfully, on those roads.

The most common object on other major arteries was the utility pole, with about 23.4 percent of the fatal mishaps.

Provided by
BIOENVIRONMENTAL ENGINEERING

Aerospace Medical Consultants Division
Office of the Surgeon General

Recently, two individuals became snowbound in their vehicle and tragically died of carbon monoxide poisoning after leaving the engine running to provide warmth through their heater. From a detailed journal they kept, it is apparent that they took the precaution of rolling a window down slightly and getting out occasionally to ensure that the vehicle's exhaust pipe was not blocked by snow. And still — they perished.

We all should be aware of the symptoms of carbon monoxide poisoning and be alert to several factors that can contribute to serious illness and often death.

First — some facts on physical characteristics and symptoms:

■ Carbon monoxide is a COLORLESS and ODORLESS gas. Therefore, you *can't* depend on your vision or nose to provide a warning.

■ Inhalation of carbon monoxide can cause headache, nausea/vomiting, dizziness, weakness, and rapid breathing.

■ Sufficient overexposure can lead to death. In fact, high concentrations can be rapidly fatal without producing significant warning symptoms.

■ The effects can be more severe in people exposed at altitudes above 2,000 feet.

Second — some practical considerations:

■ Getting out of the vehicle occasionally to "breathe fresh air" is a good idea but may not be sufficient to offset a relatively continuous exposure to this hazard.

■ Carbon monoxide can enter a vehicle through the fresh air (heater) intake AND through cracks around the doors/windows or elsewhere in the vehicle leading to the interior.

■ An "envelope" of deadly carbon monoxide can easily be created around a stationary vehicle, particularly when there is little wind or when there is a breeze blowing the exhaust gases from the vehicle's tail pipe back towards the front of the vehicle.

■ Such situations can obviously be created while snowbound or even when caught in traffic (e.g., bumper-to-bumper traffic, engine exhaust feeding almost directly into fresh air (heater) intake of vehicle behind).

What can YOU do to minimize the danger?

■ In cold country, always carry practical "survival" gear (e.g., boots, hat, gloves, blankets) to provide some semblance of warmth without dependence on extended use of the vehicle's heater.

■ If you do become stranded and want to use the vehicle's heater:

□ Run the engine only intermittently (e.g., 15 minutes of each hour).

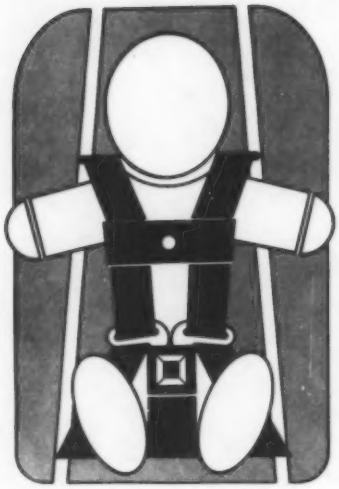
□ Try to position the vehicle so that the tail pipe is free of obstruction AND the wind is moving the exhaust *away from* the vehicle.

□ If you are so fortunate as to have a 10- to 15-foot section of flexible hosing that would connect to the tail pipe, connect it so that it will lead exhaust as far away and downwind of the vehicle as possible.

Vehicles are not the only source of this "killer" gas. Kerosene burners used as space heaters can also produce a dangerous and possibly fatal environment if not properly operated in reasonably well-ventilated areas. Don't operate such heaters, if unvented to the outdoors, for long periods in small rooms, or even larger areas that are so well "sealed" as to inhibit fresh air exchange with the outdoors.

In summary, carbon monoxide (CO) is an odorless gas. Your only warning may be the symptoms of headache, nausea, dizziness. Be alert to the situations that can lead to carbon monoxide poisoning and take all available precautions.

Contact your local Medical Service (Bioenvironmental Engineering and Environmental Health) and Safety representatives for additional guidance or assistance in evaluating any specific situation before it becomes life-threatening.



CHILD SAFETY SEATS SAVE LIVES

The California Highway Patrol prepared this summary of incidents in which a child safety seat was instrumental in preventing a death or in reducing the severity of injury to the user. These 13 case histories represent the initial factual California data illustrating the value of such seats.

May 29 — Multi-vehicle accident caused by a drunk driver running a stop sign and broadsiding another vehicle. Driver and unrestrained 8-year-old boy in broadsided vehicle ejected and killed, 12 others injured — mostly major injuries. Eighteen-month-old child in broadsided vehicle was in child safety seat and was the *only one* in *all* vehicles *not injured.*

July 18 — Vehicle was struck from rear by hit-and-run truck. Vehicle left the road and overturned. Driver (grandmother) and two-year-old boy, both unrestrained, ejected and killed. Mother ejected and injured. *Seven-month-old girl in child safety seat uninjured even after being suspended upside down in overturned vehicle for 5½ hours.*

Aug. 8 — Two-car accident injured six unrestrained victims. Five-year-old girl in child safety seat suffered only a slight cut on tongue. In officer's opinion, "She (the child) probably would've never lived through the accident if she hadn't been in the seat."

Aug. 11 — Head-on collision injured drivers of both vehicles. Two children (ages 2 and 4) in child safety seats in rear of one of the vehicles were uninjured. Police reports state that major front-end damage to both vehicles indicates that the children almost certainly would have suffered major injuries without the child safety seats.

Sept. 7 — Wrong-way driver hit another vehicle head-on. Estimated impact speed 120+ miles per hour! Collision caused immediate fatal injuries to driver of wrong-way vehicle as well as driver and passenger of other vehicle. One-year-old boy in child safety seat in rear of wrong-way vehicle sustained major injuries, but *survived!* There is no doubt that the child safety seat saved his life.

Sept. 23 — Speeding vehicle ran red light and broadsided second vehicle in intersection, estimated impact 55-65 miles per hour. Driver of second vehicle (mother) was ejected and killed. Her four-year-old daughter, in a child safety seat, remained in the vehicle as it was pushed 218 feet from the point of impact. Girl was *uninjured.*

Oct. 10 — Pickup truck drifted over center line, avoided head-on collision with vehicle going in opposite direction, over-corrected, went up bank at side of road and overturned. Driver and adult passenger were wearing seat belts, child was in safety seat. *No injuries!*

Oct. 12 — Vehicle ran red light and was broadsided by van. Driver and passenger of vehicle that ran red light sustained serious injuries. Driver (mother) of van and *two children (boy 1½, girl 3) were uninjured.* Mother wore seat belt, children were both in child safety seats. Sheriff stated that the children were uninjured because they were in child safety seats.

October — Driver (father) blacked out, vehicle left the freeway and struck guardrail. Unrestrained driver hit the windshield, suffered facial lacerations and was hospitalized overnight. A 2½-year-old boy in child safety seat received minor cuts from flying glass. *Child safety seat saved the child's life in the opinion of CHP officer.*

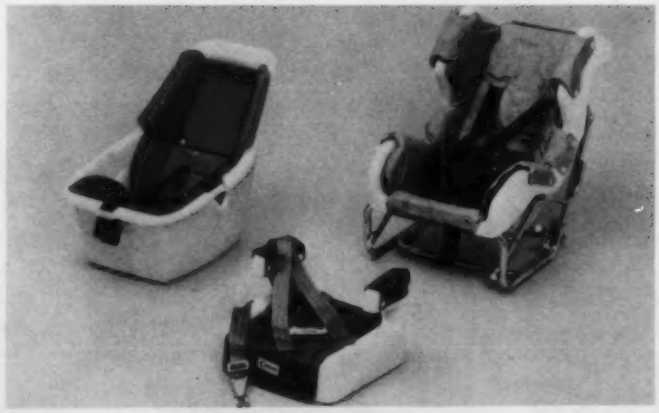
Nov. 11 — Vehicle following too closely hit rear of car in front. Passenger in following vehicle received minor injuries. Driver of vehicle that was hit, as well as *two children (ages 2 and 6), escaped injury.* In officer's opinion children avoided injury because they were in child safety seats.

Nov. 21 — Vehicle ran stop sign at blind intersection and was struck in right rear by second vehicle. Driver of second vehicle (wearing seat belt) sustained minor injuries. Driver of first vehicle (wearing seat belt) and 18-month-old girl (in child safety seat) sustained major injuries. In officer's opinion *all three probably avoided death because they used passenger restraints.*

Dec. 10 — Driver (mother) hit another vehicle. Mother (not wearing seat belt) was thrown into windshield, suffered concussion and was hospitalized. *Six-month-old daughter in child safety seat was uninjured!*

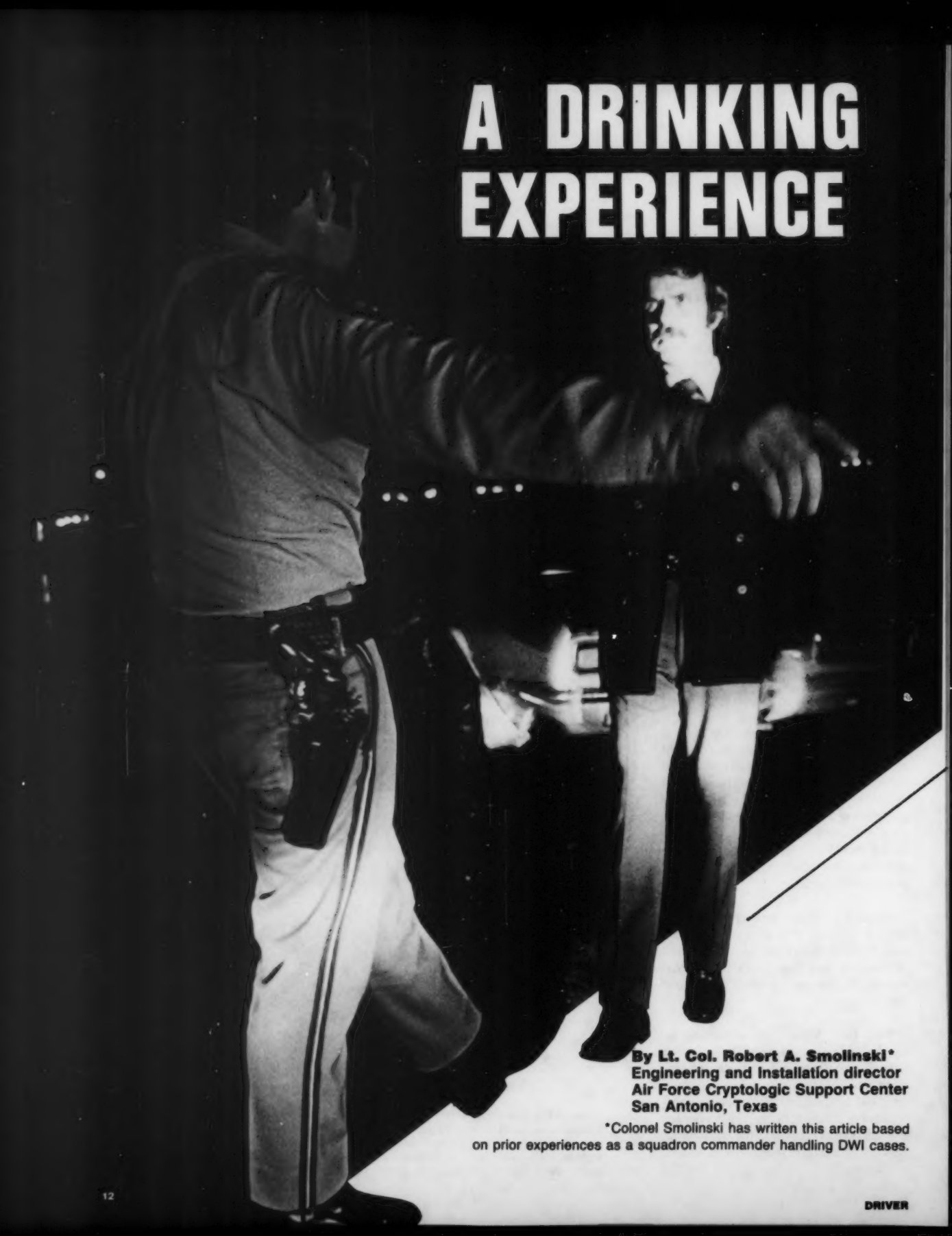
Dec. 12 — Vehicle broadsided by second vehicle that ran a red light. Driver (mother) of first vehicle sustained leg, head and back injuries while her two-year-old daughter in child safety seat suffered only a "slight bump" above her left eye. In officer's opinion the *child safety seat saved the girl from serious injury.*

▶



(clockwise from page 10)
Infant Love Seat (birth to 20 pounds), Safe-T Rider II (up to age 10 or 65 pounds), and the Century 200 Safety Car Seat (birth to 43 pounds) all meet or exceed federal standards. Chrysler/Plymouth dealers are offering substantial savings on these child seats now through April 30 during their "Handle With Care" campaign.

A DRINKING EXPERIENCE



By Lt. Col. Robert A. Smolinski*
Engineering and Installation director
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San Antonio, Texas

*Colonel Smolinski has written this article based on prior experiences as a squadron commander handling DWI cases.

After spending a couple of hours at a local club cheering on another festive event with a few friends, you drive down Main Street. You know that you are not drunk. In fact, you're "in very good shape." You grab for a package that is about to slide off the seat and as you get it, your car runs over the white line separating your lane from the other northbound lane. No problem, no car is next to you.

About 15 seconds later you hear a siren and see flashing lights in your rear view mirror. Pulling to the right to let him pass, you realize that he is staying behind you. A little concerned, you pull over and stop.

The officer asks for your license and registration. You comply — but notice that he is looking at you carefully. Then, the question you really didn't want to hear — "Have you consumed any alcoholic beverages recently?" You answer, "A few beers," thinking that he probably smelled alcohol anyway when you rolled your window down. The officer then administers the field sobriety test — the finger to nose and walking heel-to-toe routine. You're glad he isn't filming it.

Next, he tells you to come with him to the station. After arriving, you are asked to blow into a machine to measure the alcohol in your blood. You know that refusal to take the test is admissible evidence for a DWI charge in court (along with the testimony of the police officer), so you decide to take the test. The result is .11, whatever that means.

To your dismay you are booked and ushered to a cell, and the police contact the Armed Forces Police. (Until now, you didn't even know that the U.S. Military had a local police detachment.) The night magistrate has a soft spot for the military, so he allows your release under a PR (personal recognizance) Bond.

After putting up bond, you are released to the Armed Forces Police who deliver you to the Base Security Police. There, you are met by your first sergeant and he gets you home. Your impounded car will have to wait until tomorrow. It's 1 a.m. now, and you wonder where the time went since you were stopped at 7:30 p.m.

The next morning you feel fine. You aren't hung over and you think it's impossible that you were legally drunk the night before. You remember that you are to report to the orderly room immediately.

The first sergeant isn't in, so you see the commander. He doesn't lecture you; he just calmly informs you of the coming events of the next few weeks: Social Actions for evaluation of an alcohol problem; routine mental health examination; rehabilitation committee meeting for you and your supervisor; alcohol education classes. All this, even if it is determined that you *don't* have an alcohol problem.

You are informed that your base driving privileges may be revoked for one year, but you have the right to appeal, of course.

Then the comment that administrative action will follow, maybe a letter of reprimand, maybe more.

"Why all of this for something that happened off base?" And, "What if I'm found innocent?" And, "Isn't this double jeopardy?"

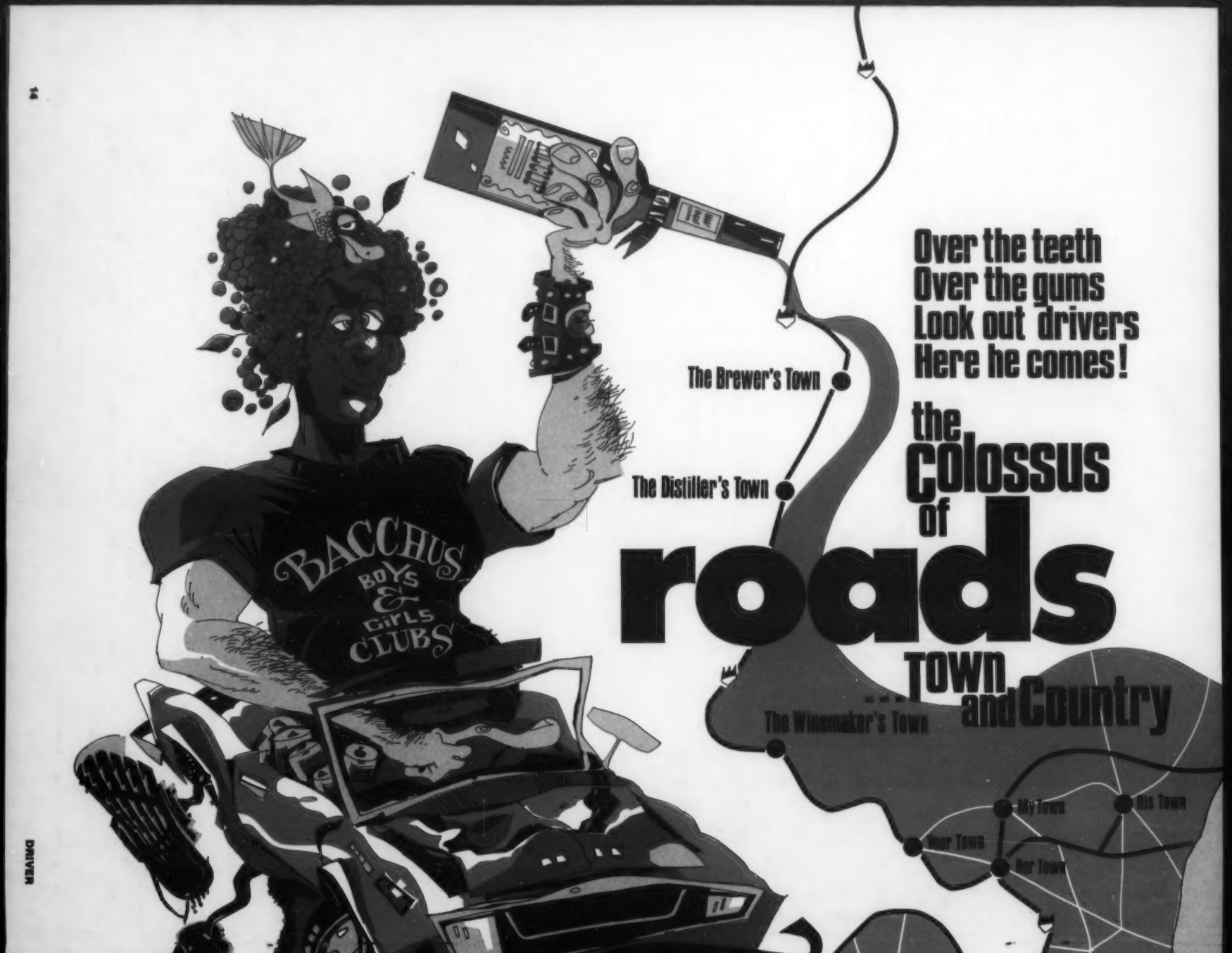
You're told that the official report will be forwarded through Armed Forces Police channels and that this is administrative, not disciplinary action under UCMJ. "If it had happened on base," he says, "you probably would get an Article 15 or a court-martial." You really don't feel thankful.

He recommends that you see an Area Defense Counsel, but they can't help in your off-base defense. Everyone has suggested that you "get a good lawyer." No one will give you a name, but you ask around and find one who says, "I'll handle it."

Because this is a state that hasn't tightened up its drunk driving laws and you do have a good record, the lawyer is able to get you "a good deal," although his fee is hefty. All you have to do is pay $300 in fines plus $120 in court costs and remain on probation for one year. This was your first offense, so you only have a record for a misdemeanor DWI. You can even forego the otherwise mandatory off-base classes because of what they called an excellent military alcohol education program. You are only a little bit disturbed that someone mentioned you could expect your insurance rates go up.

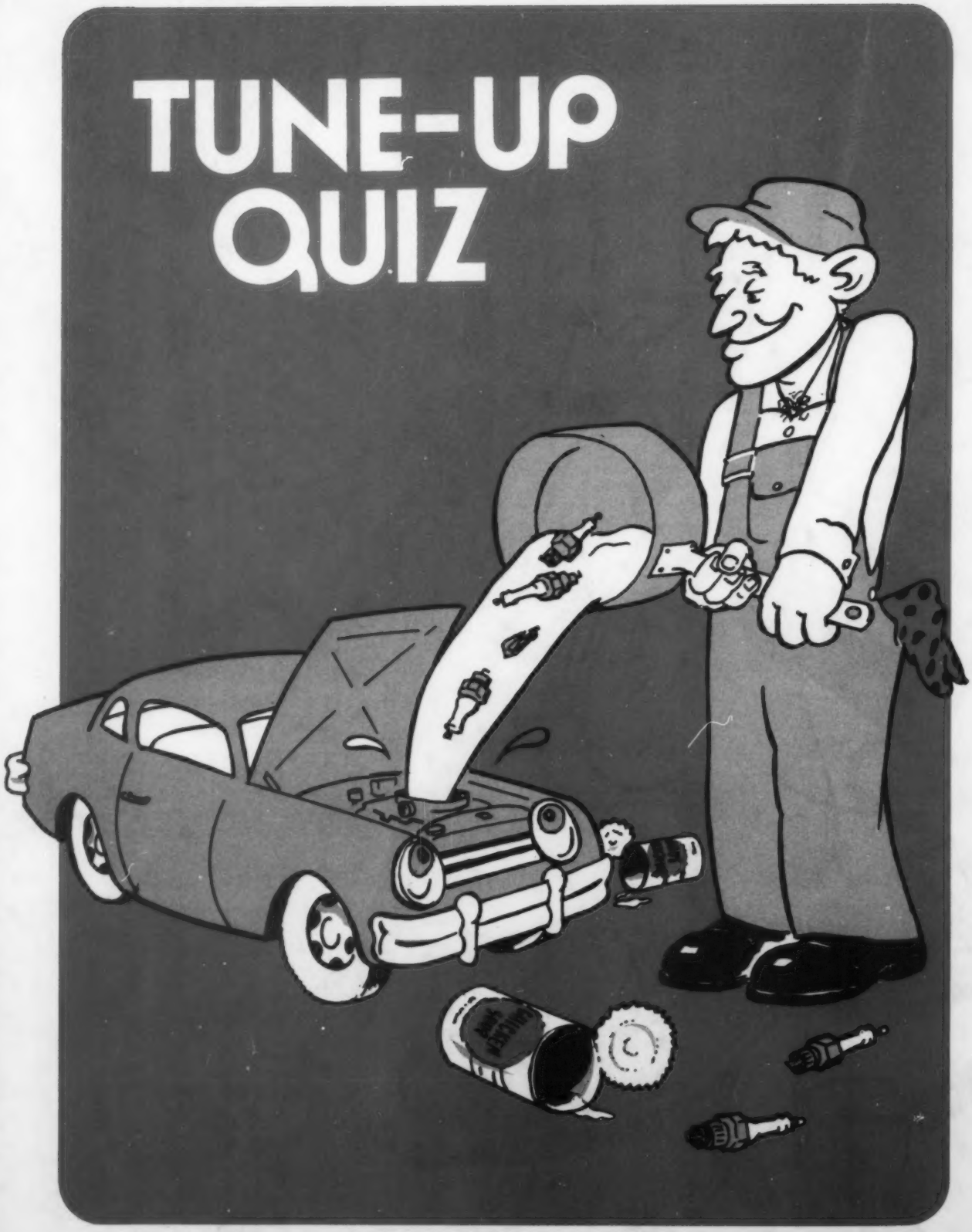
It really doesn't seem fair. All this for just going over the white line once. Then again, maybe it could have been worse.

There was no car in the right lane . . . that time.


Over the teeth
Over the gums
Look out drivers
Here he comes!
the Colossus of roads
TOWN and Country
The Brewer's Town
The Distiller's Town
The Winemaker's Town
BACCHUS
BOYS & GIRLS CLUBS
My Town
His Town
Her Town

Thief Town
Thief Town
Thief Town

TUNE-UP QUIZ



Car buffs of yesteryear will remember those good old days when points, plugs and condenser were considered "chicken soup" for most ailing engines. Today we have much more sophisticated electronic ignition systems, computerized controls and monitors that do virtually everything including step on the gas.

Yet some things, while vastly improved, continue as the mainstays of the ignition system, including the distributor, spark plugs and wiring in between. Most cars still have carburetors and we have more filters than ever before to protect these systems.

Car Care Council offers this tune-up quiz for those who believe they know something about what's going on under the hood.

TUNE-UP QUIZ

1. One of the more common problems that can turn up in a diagnostic engine check is a cracked distributor cap. This condition can cause: a) spark plug misfiring; b) bad gas mileage; c) starting trouble in cold weather.

2. An excessively dirty air filter can cause the fuel/air mixture to become: a) too rich; b) too lean; c) contaminated.

3. A gasoline filter should be replaced: a) when the engine gets a tune-up; b) each spring and fall; c) never; because it's a lifetime part.

4. Engine run-on or dieseling after the engine is shut off is often caused by: a) incorrect timing; b) lean carburetor adjustment; c) idle speed set too fast.

5. Thick, black smoke from the tailpipe indicates a possible problem in: a) the choke mechanism; b) the carburetor; c) the distributor points.

6. A hard starting problem when the engine is warm could be due to: a) worn fuel pump; b) poor vacuum advance; c) leaky inlet valve in the carburetor.

7. An engine that knocks or "pings" when accelerating, even with the correct grade of gasoline, may need: a) professional diagnosis; b) radiator service; c) timing adjustment

8. If your car has electronic ignition you'll never have to worry about replacing these items as part of a tune-up: a) distributor cap; b) condenser; c) spark plugs.

9. Surging, rough idling and slight bogs on acceleration indicates: a) carburetor out of adjustment; b) engine timing problems; c) vacuum leak.

10. When the engine is hard to start or runs rough in damp weather it indicates the possible need of: a) new ignition wiring; b) a choke adjustment; c) a new distributor rotor.

ANSWERS

Five to 8 is not bad. But consider brushing up.

Below 5? Don't be discouraged, says Car Care Council. The fact that you were interested enough to take the quiz indicates you're above average.

Car Care Council says 8 to 10 correct is excellent. Classify yourself as a superbuff.

1. All are correct. A crack in the distributor cap can cause misfiring which leads to wasted fuel and hard starting. Often the engine will not start at all.

2. a) too rich, because the dirt in the air filter blocks off the passage of air.

3. a) when the engine gets a tune-up.

4. All are correct. A properly tuned engine should not diesel or run-on after the ignition is shut off.

5. a) the choke mechanism and b) the carburetor are correct. Black exhaust smoke indicates wasted gas and will lead to fouled spark plugs.

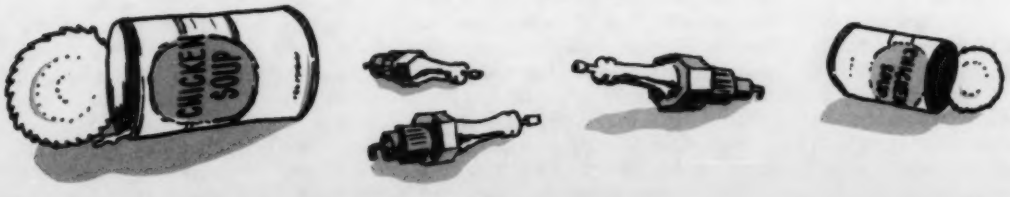
6. c) leaky inlet valve in the carburetor. This usually leads to the annoying condition known as "flooding."

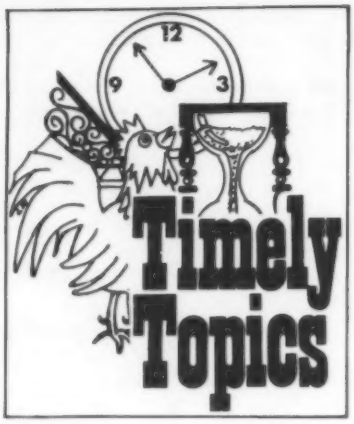
7. All are correct. If adjusting timing does not correct a knocking or pinging condition, a careful diagnosis may be necessary. This condition also may be caused by an overheated engine.

8. b) condenser. Points and condenser are among the components no longer found on newer cars with electronic ignition systems. There are numerous other components in the state-of-the-art ignition and fuel systems of today's cars that require checking and adjustment as part of regular tune-up service.

9. c) vacuum leak. This is another case for accurate engine diagnosis.

10. a) new ignition wiring and/or c) a new distributor may correct engine balkiness in damp weather.





HONDA HELMET CONSUMER ALERT

American Honda has announced a consumer information campaign to alert owners of Hondaline helmets manufactured by American Sports Company (ASC) that those models purchased since 1973 may not be up to Snell standards as labeled. To ensure that these customers have helmets that meet Snell standards, American Honda motorcycle dealers will exchange free-of-charge any ASC-manufactured Hondaline helmet for a new Snell-approved helmet of comparable value.

The Hondaline ASC-manufactured helmets can be identified by chin straps that bear the words Hondaline, Hawk, Stag, or Hare along with "American Sports Co."

According to Bill Willen, managing attorney for the American Honda legal department, the helmet exchange program is being initiated because recent independent testing by American Honda has revaled that some of the helmets sold to American Honda by ASC do not conform to Snell performance requirements. The helmets had, however, received Snell approval stickers.

"American Honda feels strongly that its customers should have what they believe they paid for — a helmet that meets Snell standards," said Willen. "Therefore, we will replace the ASC helmet with new helmets that our own testing shows do meet Snell standards."

An on-going national advertising campaign is running to alert American Honda helmet customers about the exchange program and assist them in identifying helmets involved in the exchange program. It includes ads in major enthusiast publications and informational posters at all American Honda motorcycle dealerships nationwide.

Persons with a Hondaline Hawk, Hare or Stag helmet bearing a chin strap with the proper ASC identification can contact their local American Honda motorcycle dealer to arrange for a replacement helmet.

TOO DRUNK TO DRIVE

With the onset of tougher drunk driving laws in many states, manufacturers have been anxious to introduce hand-held detectors that measure blood-alcohol concentration. Unfortunately, the products all proved too expensive, averaging about $40 each. But now drug and convenience stores are offering a detector called "Tipsy Tester" that sells for about $2.

The tester is a 4-inch long plastic tube packed with yellow silica gel crystals coated with zinc potassium dichromate, a substance that reacts with the alcohol in a person's breath.

To use it, one pulls the caps off both ends of the tube and pours out some blue, non-treated crystals packed around the alcohol-sensitive yellow ones. The blue crystals absorb moisture and help preserve the treated crystals.

The driver blows into the tube for 15 seconds. The crystals turn pale lavender if the blood-alcohol concentration is 0.08 percent or higher. (In some states, 0.05 percent is legally drunk.)

The tester isn't completely accurate for everyone because of the variance in body weight — heavy people can drink more before reaching legal limits. However, the manufacturer says the reading will be close enough to serve as a guide as to when you should not drive.

CONSUMER'S RESOURCE HANDBOOK

Every now and then we buy a product or a service and we're not completely satisfied. That new pair of boots falls apart in the first rainstorm, the car knows the shop mechanic better than it knows you, the brand new blender sits in silence when it ought to be blending.

What to do? We can shrug our shoulders and swallow the loss. Or we can go back to the seller, tell someone off and leave in a huff. But that's not going to correct the problem.

Often what we need are practical suggestions and names and addresses of people to contact. One of the best books to have when these problems arise is the *Consumer's Resource Handbook*, published by the United States Office of Consumer Affairs. Free copies are available from the Consumer Information Center, Dept. 601M, Pueblo, CO 81009.

The first step, according to the *Handbook*, is to identify the problem and consider acceptable solutions. Have you read the instructions carefully and are you using the product correctly? What services are lacking? Do you want your money back? Would you like the product repaired or exchanged? What would you like the seller to do?

Next, gather sales receipts, contracts, repair orders, warranties, and cancelled checks, and contact the person who sold you the item or performed the service. Calmly and accurately explain the problem and what action you would like taken. If that person is not helpful, ask for the supervisor or manager and repeat your complaint. A large percentage of consumer problems can be resolved at this level.

If that doesn't work, it's time to write a letter. Your best bet is to contact the person responsible for consumer complaints at the company's headquarters or regional office in your area. The *Handbook* lists the names and titles of consumer contacts in hundreds of national companies such as automobile manufacturers. You can also get this information out of *Standard & Poor's Register of Corporations, Directors and Executives*, which lists over 37,000 American business firms and can be found in most libraries.

Your letter should be brief and to the point. Include all important facts, including the date and place of purchase and serial or model numbers. State exactly what you want done about the problem and how long you are willing to wait to get it resolved. Avoid writing an angry, sarcastic or threatening letter, and be sure you include your name, address, and phone number. Send copies of all pertinent documents and keep the originals. If you still don't get satisfaction, the *Handbook* offers other suggestions including tips on how to use small claims courts.

BIG CARS AND THE COST OF GAS

When 200 auto industry executives were questioned in 1981, they predicted gas would cost $3 a gallon by 1990 and only 3 percent of all cars would have eight cylinders. The University of Michigan's Office for Study of Automotive Transportation has just questioned the executives again. They now believe gas will cost $1.60 a gallon in 1990 and that large cars will continue to hold a significant chunk of the auto market, with 10 percent of 1990's cars having eight cylinders. Obviously, there's a very different expectation for future energy costs than the same people thought two years ago.

TRUE ACCIDENTS

Following are a few reports of accidents involving Air Force members. We have removed names and references to dates and places.

JACK STANDS?

Participant number one remained at his off base quarters to change the oil in his PMV while his wife and a friend went shopping in the afternoon. They departed at approximately 1200 and returned at approximately 1700. On returning to her home, participant number one's wife found him pinned under their PMV. She summoned help and the police and paramedics responded shortly thereafter. Participant number one was pronounced dead at the scene. Death was due to massive head and chest injuries (crush) caused when the vehicle fell onto participant number one. There were no witnesses to this mishap. The sequence of events that follows is the most probable sequence of events that led up to and included the mishap.

After participant number one's wife departed for shopping, he went into his garage and prepared to change the oil in his PMV. He jacked it using a bumper jack and placed wood shoring under the frame (right front) in front of the axle. He may have placed a jack stand under the front bumper. A bumper jack was found by the investigating police officer in front of the PMV at the mishap scene. It was lying on its side as if it had been tipped over. The right front wheel/tire was removed to facilitate the removal of the old oil filter and re-installation of the new one. He then drained the old oil, put the drain plug back in and installed the new filter. He then put new oil into the engine. After filling the engine with the proper amount of oil, he apparently started the engine to check for leaks. Most of the oil he put in the engine was thrown out around or past a crimp in the seal of the new filter as was evidenced by the new oil on the floor and on the wood shoring. Realizing something was amiss, he shut the engine down and got under the vehicle to check out the problem. He apparently was attempting to remove or reseat the new filter when the force he was exerting on the filter caused the vehicle to roll backwards a short distance, fall off the bumper jack or jack stand, miss the wood shoring that had been placed to stop a vertical fall/drop, crushing and fatally injuring participant number one. The parking brake was not set. The vehicle was in park but this was of no avail in that it was a front wheel drive vehicle and the front end was off the ground prior to the mishap.

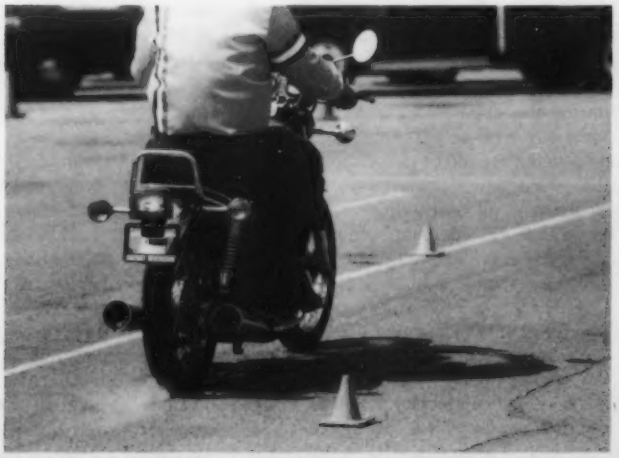
FATIGUE, UNLIT ROAD

Operator number one and his buddy were on separate motorcycles, returning to the base via a narrow (19 feet side) dirt road. Both were wearing helmets. Operator number one's budy was trailing operator number one by about 200 yards, both traveling approximately 40 mph, when he noticed the taillights of the lead motorcycle disappear. A few seconds later he saw operator number one lying in the roadway with the motorcycle off the side of the road. Operator number one was breathing but was unconscious and would not respond. His buddy left to get assistance and went to the main gate, alerting the gate guard who initiated emergency medical response. Operator number one was initially taken to a hospital and was later evacuated by helicopter to a county medical center. He was pronounced dead at approximately 2230 by medical officials.

Operator one worked from about 0630 to 1730. After work, he was seen around the barracks and the dining hall until about 2000. From 2015 to about 2400 hours, operator one and his buddy were at the NCO club with friends. The two individuals consumed about a pitcher and a half of beer between them during that time. They spent the next three hours (2400-0300) watching TV in the barracks day room with friends. Neither operator one nor his buddy drank any alcoholic beverage during this period. At about 0300 the two individuals each gave a friend a ride, on motorcycles, to the friend's residence in a town about 13 miles from the base. They borrowed helmets for their passengers and all four wore helmets during the trip. They left on the return trip to the base, wearing helmets. The normal entrance to the base from the town is closed at night. When the motorcyclists reached the closed gate operator one, who was in front, elected to take a short cut via a narrow dirt road that borders the west boundary of the base rather than the more circuitous, longer, paved route to the main gate. His buddy dropped back to about 200 yards behind operator one to reduce the effects of the dust kicked up. It was very dark, no moon, and weeds on each side of the narrow road were as tall as eight to 10 feet. After traveling about two-and-one-half miles on the dirt road, operator one drove into a washed-out area and lost control of the motorcycle. The washed-out area was approximately four to six feet wide and ran across the road. It was rutted and dry — very rough. The motorcyclists were traveling about 40 mph. While that speed is generally considered "safe," it was probably slightly fast for the visibility conditions that night. It would be almost impossible for a motorcycle headlight to adequately illuminate that washed-out area. Investigators believe operator one was in the washed out area before he knew it was there. The motorcycle probably tumbled forward upon hitting the ruts, throwing operator one forward, then the two tumbled together for some distance. Operator one's buddy did not see the mishap, but noticed the lead motorcycle taillights had disappeared. He slowed down, crossed the washed-out area and saw operator one lying in the road. After unsuccessfully trying to get a response by yelling, he left the scene and went to the main gate for assistance. Base ambulance service arrived soon thereafter. Investigators believe that fatal, irreversible injuries occurred during the mishap. Emergency response was correct and not a factor. Investigators are convinced that the only alcohol consumed by operator one was consumed more than four hours prior to the mishap, had metabolized, and was not a facator. He was not intoxicated. The amount of alcohol may have, on the other hand, exacerbated the fatigue factor. Operator one had probably been awake for nearly 22 hours and, in spite of youth and excellent physical conditioning, was suffering at least some degree of fatigue. Mental alertness and judgment would have been compromised. Operator one had completed Course VII, Motorcycle Challenges, and had less than 12 months experience riding motorcycles.

(above and left)
Before taking on public highway traffic after a four- to six-month layoff for the winter, it's a good idea to tune your riding skills on an empty parking lot.

Tight turns require the same skills at slow speeds that open-road turns demand at higher speeds.



Straight line braking is a skill you can easily polish on a parking lot.

motorcycle SKILL TUNEUP

After a long, hard winter, motorcycle riding season is almost upon us again. However, before you crank up the engine and head on down the road, perhaps you'd better consider a skills tuneup.

That's right, a motorcycle riding skills tuneup. It's been four to six months since you straddled the saddle and your mastery of the two-wheeler isn't as good as when you last rode.

To accomplish this tuneup you need an empty parking lot (it would be a good idea to have permission to use the lot and it would help prevent spills if the lot had been swept recently). Then spend two hours practicing and tuning your skills before heading for the public highways.

You'll want to practice:

- **Straight line braking**
- **Tight turns without putting your foot down**
- **Braking in a turn**
- **Evasive maneuvers (countersteering)**
- **Lane weaving**

If you take your riding seriously — as you should — you'll go the parking lot tuneup one step better and enroll yourself in a hands-on training class such as the Motorcycle Riders Course or Better Biking Program. When these courses are offered on base, they are usually free. If your base doesn't offer such hands-on instruction, many civilian communities do for a nominal fee.

The best evaluation of how well you tuned your skills is MOST II. MOST stands for Motorcycle Operator Skill Test and is currently required for on-base motorcycle registration at many installations.

MOST II is an objective test of your skills as a rider based on "real world" requirements. If you can handle MOST II, you're ready for the riding season.

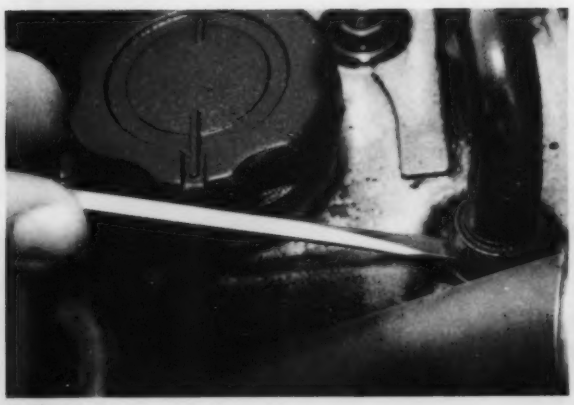
You also want to practice evasive maneuvers via countersteering before hitting the open road.

RIGHT (and RWONG way) TO USE TOOLS

The first rule of safe tool utilization is having the proper tool for the job. That's why last month's Backyard Mechanic was about buying the right tools. The second rule is using the tool in the correct manner.

Of all the tools in your tool box, the screwdriver is probably the most used and misused one. The only proper use for

A screwdriver is NOT a chisel . . .



pry bar . . .

scraper . . .

a screwdriver is installing and removing screws. What could be simpler?

However, you will find people using the screwdriver as a chisel, pry bar, scraper and punch. For some reason it always seems easier to use a screwdriver than to look for the proper tool. Easier, that is, until something goes wrong (as it always does when using the wrong tool) and the object being worked on is ruined or the screwdriver slips and gouges the user's body.

Screwdrivers are for turning screws; nothing less, nothing more. To do this properly, select the screwdriver with the blade that fits the screw slot as closely as possible. The closer the blade fits the slot the more leverage you'll be able to apply. Using the wrong size blade can damage the slot to the point that no screwdriver will ever be able to turn the screw again.

If you need to balance the screwdriver and screw, use your free hand to steady the screwdriver, not the screw. Hands must never be below the tip of the blade. One slip and you've stabbed yourself before you know it. If you need to hold a screw steady until it gets started, use pliers, not your fingers.

If a screw requires more twist to loosen than your palm can apply, grab the screwdriver shank with an adjustable wrench for more leverage.

Another abused basic automotive tool is the wrench. No matter what type of wrench you're using, the primary rule is

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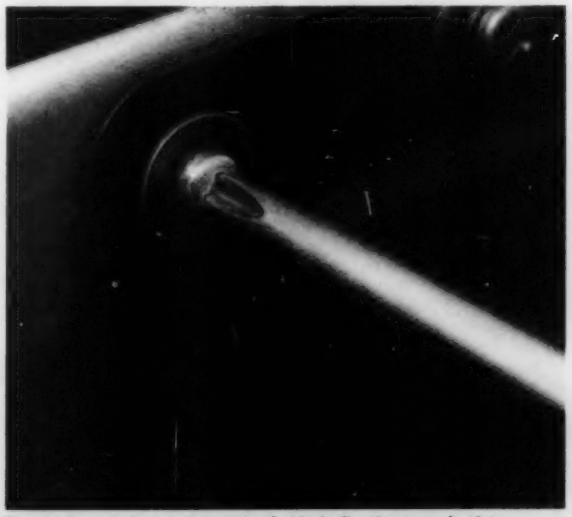
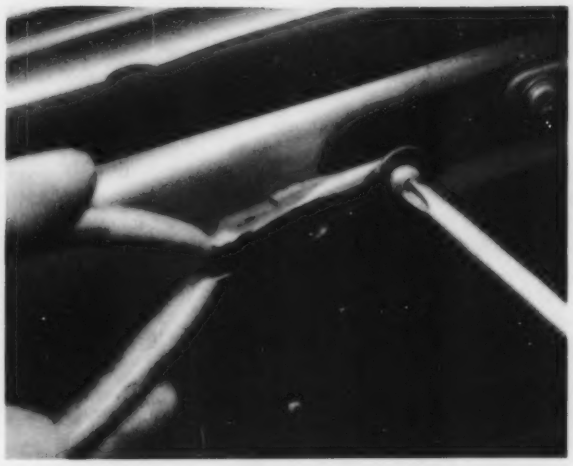


Properly used, the screwdriver's blade fits the screw's slot.

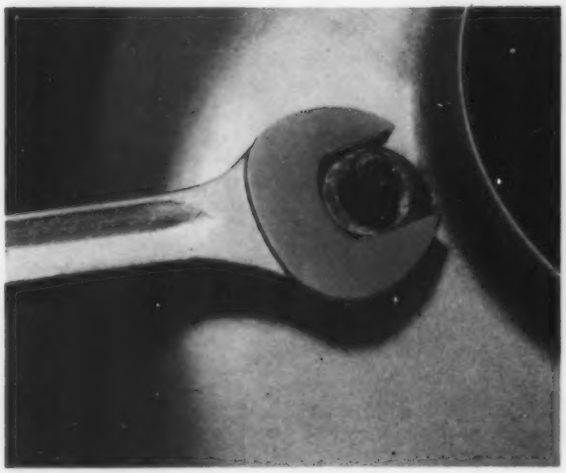
or punch.

To steady a screwdriver and screw, use your free hand on the screwdriver only.

Never allow your fingers to be below the screwdriver tip unless you like stabbing yourself.



Pliers, not your fingers, should be used to hold a screw steady until it gets started.



Wrenches should fit snugly without being forced.

The wrong size wrench can round the head corners and slip.

Always pull . . .

never push a wrench.

continued

Wrenches should fit squarely on the nut or bolt head, not twisted.

in using the correct size for the bolt or nut. Wrenches should fit snugly without being forced on. And they should be squarely on the nut or bolt, not twisted.

The next wrench rule is always pull, never push, the handle. You pull because if the wrench slips off, or the part breaks, you will fall away from your work instead of into it. You should also make doubly sure that the area around your pulling hand is clear. When pulling, pull toward the center of your body — there are going to be times when you'll need all your strength to budge a tight bolt.

Box-end (closed) wrenches are stronger than open-end ones, but aren't as convenient to use. Because they completely surround the bolt head or nut, box wrenches are hard to get into tight spaces. Additionally, they have to be lifted off the head and repositioned several times for each bolt revolution in most cases.

On the other hand, open-end wrenches slip on and off nuts and bolts in addition to fitting into tight spaces. Yet, open-end wrenches have their problems, too. If the bolt is very tight, open-end wrenches can slip and round the head's corners. Once the corners are rounded, there is no way to grip the head.

When a bolt appears to be very snug, it should be treated with a solvent. Allow the solvent to soak in and work before making any attempt to move the bolt.

continued

To keep the socket firmly on the bolt or nut, use your free hand on the head of the handle, not the socket or extension.

continued

If more leverage is required, get a bigger breaker bar. Don't put a pipe on a ratchet or short breaker bar.

Of course applying more leverage makes the job easier. To do it, sockets with ratchet or breaker bar handles come in handy. Proper-sized sockets give you all the strength of box wrenches while the ratchet handle provides the speed of the open-end variety. Drive extensions increase the reach of these tools. And the addition of u-joints or flexible extensions permit working around bends and into areas that you may not be able to see.

When pulling ratchet and breaker bar handles be sure to hold the socket firmly on the bolt or nut. To do this, use your free hand on the head of the handle, not the socket or extension. This will prevent the handle from flying off when pressure is applied.

Never use a pipe on a ratchet or short breaker bar to gain leverage. This type of force usually results in broken tools and damaged parts on both the vehicle and mechanic. If more leverage is required, get a larger breaker bar.

Also, when working on snug fitting nuts and bolts, use 6-point sockets instead of the more common 12-point ones. The 6-point sockets fit the heads closer thus avoiding the possibility of rounding off the corners.

Because there will always be bolts and nuts that don't match the size wrenches and sockets in your tool kit, every mechanic has at least one adjustable wrench. And it will work just fine as long as it is properly adjusted to fit the head snugly and the pulling action is against the fixed jaw, not the moving one.

Pliers are used for holding, cutting and squeezing things when your hands can't get the job done. They are not wrenches and shouldn't be used for turning nuts and bolts.

Then there is every mechanic's favorite tool: the hammer. If the answer to a problem is getting a bigger hammer, you're asking the wrong question. Hammers are for driving parts, not forcing them. And because any hammer, big or small, can deliver a great deal of force to a struck surface, always strike the surface square to prevent chipping. Just in case, always wear safety glasses whenever you're using a hammer.

Using worn or damaged tools is just as dangerous as using the wrong tool or one of the incorrect size.

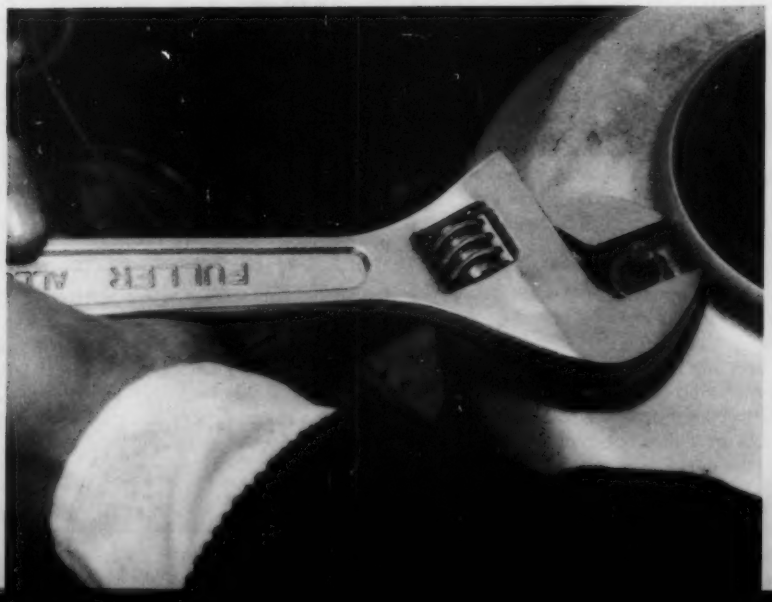
(right)
Adjustable wrenches work fine when adjusted to fit the head snugly and the pulling action is against the fixed jaw, not the moving one.

other RIGHT WAYS

- Read all the instructions first
- Run gasoline engines only in areas well-ventilated — outside being the best
- Keep hands, hair, loose clothing, jewelry and test leads away from moving parts
- Don't touch hot exhaust manifolds, radiators or high-voltage spark plugs and coil terminals
- Never look into a carburetor throat when an engine is being cranked or running

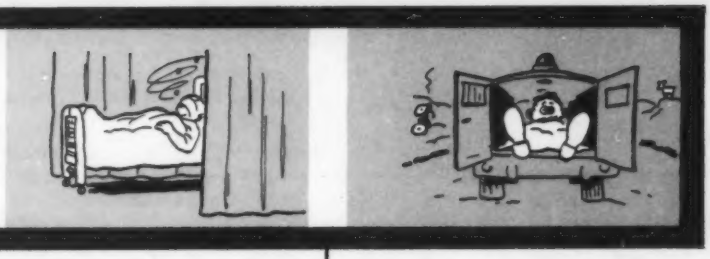
- Don't smoke or allow flame or spark to occur near carburetor, fuel line, fuel filter, fuel pump, spilled fuel, cleaning solvents and other flammables
- Gasoline is NOT a cleaning solvent
- Keep a fire extinguisher rated for gasoline and electrical fires in an easy to see and reach spot
- Don't transfer gasoline or flammables from one container to another (including the gas tank) in closed areas

- Don't store gasoline, solvents or other flammables near open flames (such as hot water heaters) or grinding equipment
- Wear welder's gloves, hood, cap and long-sleeved shirt when welding
- Wear safety goggles or glasses
- Don't handle electrical equipment when you or the floor is wet.
- Never get under a vehicle that is not supported by at least two jack stands.
- Wear oil resistant and non-slip shoes
- Don't attempt to lift heavy or bulky objects by yourself
- Wear work gloves
- "Cold" medicines, pain pills, uppers or downers to NOT mix with garage work
- Keep toxic materials out of children's reach
- Keep children away from all equipment except when under the direct supervision of responsible adults
- Don't stand in front of or behind a running car
- Stay clear of the path a broken fan or pulley might take
- Have a first aid kit handy
- Set the emergency brake, put the transmission in neutral or park, and block the wheels
- Alcohol, including beer and wine, does NOT mix with garage work
- **THINK SAFETY**



Pliers are not for turning nuts and bolts.

BACKFIRE
LETTERS to the EDITOR



THE AIRMAN BEHIND THE CURTAIN

I'm writing this letter in hopes that you'll use your head for what it was intended for (thinking), not as a battering ram!

I was the subject of a letter to the editor in the January issue of DRIVER entitled "The Airman Behind the Curtain" (from Maj. Grover C. Tate, USAF (Ret.))

I didn't think that a helmet was very important until my head hit a cement wall at 40 plus. It was a miracle I lived, in the words of my doctor. If I was wearing my helmet I wouldn't have had to have 15 hours of brain surgery or an ear operation, let alone being in a coma.

How I now wish there was a mandatory helmet law in California.

If you don't care if you die, fine. But do you want to watch your loved ones crying and praying that you live?

It cost my family thousands of dollars to fly across the country to see me.

I went months without being able to read or write, and life has been nothing but pure hell since. Please, I beg you wear your damn helmet!

If you don't agree with me, you will after you crash.

A1C James K. Collins, USAF
Edwards AFB CA 93523

WHY PULL PUNCHES?

While I think your recent article on motorcycle helmets (Helmet Testing, December 1983) was good as far as it went, I must say I am disappointed with what it didn't say. Professor Harry Hurt obviously has done a lot of work and surely has a lot more specific information than what was presented in the article.

I am sure that with his research and testing, *he* surely knows which helmet models stand up to impacts best and offer the wearer the protection he or she is after. So why pull your punches and only give us half of the story? If your goal is really to help Air Force members protect themselves and safely enjoy motorcycling, why not give it to us straight? Half of the truth is no good to anyone.

Capt. Olin E. Heikkola, USAF
Loring AFB, ME 04751

The report from the head protection laboratory at the University of Southern California on the best helmets isn't completed yet. When it is, we'll tell you in these pages so you can obtain a copy. In the meantime, they recommend you look for a helmet that 1) is comfortable (so you will wear it rather than leaving it at home), 2) is DOT-approved, and 3) has eye protection (a face shield). They also recommend a full-face style, with the styrofoam padding in the chin piece. Also good is the Safety Helmet Council of American (SHCA) sticker.

The most important recommendation — wear the helmet. It won't do any good hanging on the peg.

BUT I FORGOT

It's been some time since I've taken my IBM in hand to drop you a note, but I'd like to add a comment to the others I'm certain you'll receive concerning "Bikers and the Killer Bs" in the January issue.

Last March I was riding a good blacktop highway on South Island, New Zealand . . . enjoying the experience of doing some cycling in a country which I'd always wanted to visit. Seemingly the next second I was looking between my boots out the back end of an ambulance without the slightest idea of how I got there. What got me there — my first serious cycle crash after all those hundreds of thousands of miles — was five busted ribs, a collapsed lung and snapped collar bone. . . .

Why I'd crashed was a mystery which took a while to solve. The previous day I felt a cold coming on, so I'd purchased some over-the-counter cold remedies which contained antihistimine, an ingredient which had never seemed to interfere with my responses in the past. Antihistimines will cause drowsiness in some people, but they'd never affected me in that manner.

It was not until I was able to return to the United States a month or so later that my doctor here came up with the answer. He'd put me on a prescription drug some months earlier . . . one little pill each morning: it quickly became a habit. He'd warned me at the time, but I'd forgotten that. It seems that the combination of the prescription drug and the antihistimine caused a reaction. I'd gone to sleep suddenly while riding and simply drifted off the road into the rocks. These days I pay considerably more attention to those little warnings on the labels!

The worst thing about my experience was — I was off a motorcycle for a month!

Regards to all the crew and tell 'em to . . . ride safe(r than I did in NZ). . . .

Roger Hull,
Road Rider Magazine
South Laguna, CA 92677

I'D LIKE TO SEE

I question the results of the Highway Loss Data Institutes (HLDI) study published in your December 1983 issue of DRIVER. All it really proves is that there are few male drivers under the age of 25 driving 1980-1982 Olds 98 four-doors, Cadillac DeVille four-doors, or Ford LTD station wagons; and a whole lot of them driving Datsun 210s, Honda Preludes, and Toyota Tercel two-doors. In general those big late model American four-doors and wagons are driven by us middle-aged guys and those little foreign cars are driven by the youngsters who cause most of the fender benders.

I'd like to see the HLDI adjust the statistics for differences in age. I'll bet the results would show much less dif-

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ference in the injury losses between the big and little cars.

Eugene Schwartz, contracting officer
Air Force Plant Rep Office
Rocketdyne Division
Canoga Park, Ca 91304

To some extent you're right. The Datsun 210, with injury claims running 51 percent above average, is probably driven most by young people in the vulnerable age group. But we think HLDI figures also say that what would be a fender bender in a big domestic station wagon is an injury-producing accident in the smaller car and that many of the injuries are more serious, leading to larger claims against insurance policies. Generally speaking, young or middle aged, once the accident occurs you are less likely to be injured, or injured seriously, in a larger car.

REPAIR RIP-OFFS

That March 1983 DRIVER Double Tech article on repair rip-offs reminded me of an experience several years ago while driving from Florida to Maine.

At a major oil company service station near Interstate 95 (in an infamous Southern state) I stopped for gas, and the young attendant offered to check the oil for me. Seated in the drivers seat, I had an excellent view, through the opening under the open hood, of his repeated efforts to check the oil. The attendant was rapidly inserting and removing the dip stick and checking the results. Each time he inserted the dip stick less and less until he finally got a low reading, and promptly informed me that the engine was a quart low on oil.

Without revealing my knowledge of his technique I told him that I was puzzled and checked myself. Of course the level was fine.

This didn't seem to discourage him as he casually informed me that my voltage regulator was probably failing since it was very hot. He verified this claim when he asked me to "check it yourself." I did, and it was hot. In fact, it was just as hot as the radiator and all the sheet metal around the radiator where the regulator was mounted (within three inches).

When he moved on to find another "problem" I intervened, asked him to finish filling the tank, and finally paid for the gas. When I asked him for the station owner's name he questioned my reasons. I told him that I intended to report the incident to the Federal Trade Commission as an attempt to commit fraud. Suddenly he paled and couldn't bestow enough good will and customer service, with best wishes on completion of my trip.

I never did report the incident, although I now feel I should have, and certainly will in the future. I now never allow any service to be performed on my car without being in full view of the attendant. The rip-offs do exist for those people who don't have a rudimentary knowledge of car service, or don't have the desire to detect a con job.

I must note that on the return trip the alternator in my car failed in South Carolina, and a Highway Patrolman voluntarily drove 10 miles to a parts shop with me, entered the shop (where his presence was ominously noted) and returned to my car where he stayed until I was back on the road again. I'm sure his help resulted in a fair price for the new alternator sold to a tourist obviously in distress.

TSgt. Brian P. Swan, USAF
Patrick AFB, FL 32935

PASSENGER'S OPINION

In the November 1983 DRIVER (May the Force Be With You), Captain Shultz points out several lessons learned from his unfortunate incident. These lessons are very important as they are the basis for defensive driving. I am very happy to see that there is another who now has the proper technique.

However, Captain Shultz missed another basic lesson that could be learned from this: Considering the opinion of his passenger. Sometimes they see things that we do not. (Are there any navigators out there?)

Of course, he had listened to the opinion of his NCO and agreed with it, he may not have ever learned the value of watching out for "the other guy" or "making it click." And he might still be wandering around trying to figure out why he is in communications and not weather.

I would like to extend my congratulations to Captain Shultz for his promotion to the defensive driving "ranks." We need as many of you as we can get; although preferably not by the same method.

SSgt. Earl V. Hendershot, USAF
Keesler AFB, MS 39534

CALL THE POLICE

I would like to comment on a story in the January 1984 issue of DRIVER. "After the Crash" was a very good article and well written. There is one point that should be made. I saw this happen to a good friend of mine and feel that it might save someone from making the same mistake.

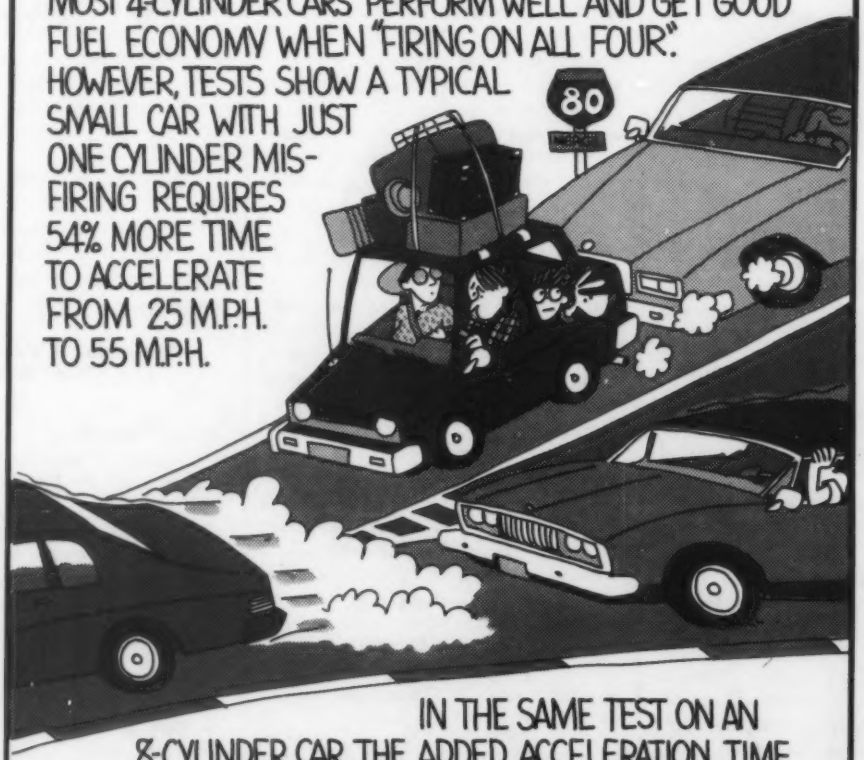
He was involved in a small fender bender and the other driver (driver 'B') took responsibility for the accident and said that he would contact his insurance company. Two days later, the police came to my friend's house and charged him with a hit and run. Because driver B had called the police and reported the accident, my friend was charged a large fine as well as personal damages. He also spent some time in jail. He learned his lesson the hard way. No matter how small the accident, call the police. It's for your protection.

A1C William T. Griffin, USAF
San Antonio, TX 78243

Auto Facts

THE LITTLE CAR THAT COULDN'T

MOST 4-CYLINDER CARS PERFORM WELL AND GET GOOD FUEL ECONOMY WHEN "FIRING ON ALL FOUR." HOWEVER, TESTS SHOW A TYPICAL SMALL CAR WITH JUST ONE CYLINDER MIS-FIRING REQUIRES 54% MORE TIME TO ACCELERATE FROM 25 M.P.H. TO 55 M.P.H.



IN THE SAME TEST ON AN 8-CYLINDER CAR, THE ADDED ACCELERATION TIME WITH ONE CYLINDER MISFIRING WAS ONLY 28%. GOOD PERFORMANCE IS A SAFETY FACTOR IN SITUATIONS SUCH AS ENTERING AN EXPRESSWAY OR PASSING ON A TWO LANE HIGHWAY.

car care council